UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

PAPER

08/06/2007

United States Patent and Trademark Office

APPLICATION NO. FILING DATE FIRST NAMED INVENTOR ATTORNEY DOCKET NO. CONFIRMATION NO. 10/511,181 10/14/2004 Jorg Schwarzbich 344/1/083 1991 170 7590 08/06/2007 **EXAMINER** RICHARD M. GOLDBERG 25 EAST SALEM STREET MCPARTLIN, SARAH BURNHAM **SUITE 419** ART UNIT PAPER NUMBER HACKENSACK, NJ 07601 3636 MAIL DATE **DELIVERY MODE**

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<u> </u>	· • · · · · · · · · · · · · · · · · · ·	
F	Application No.	Applicant(s)
~ (*)	10/511,181	SCHWARZBICH ET AL.
Office Action Summary	Examiner	Art Unit
·	Sarah B. McPartlin	3636
The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply		
A SHORTENED STATUTORY PERIOD FOR REPL WHICHEVER IS LONGER, FROM THE MAILING D. - Extensions of time may be available under the provisions of 37 CFR 1. after SIX (6) MONTHS from the mailing date of this communication. - If NO period for reply is specified above, the maximum statutory period Failure to reply within the set or extended period for reply will, by statut Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	DATE OF THIS COMMUNICATION 136(a). In no event, however, may a reply be ting will apply and will expire SIX (6) MONTHS from e, cause the application to become ABANDONE	N. mely filed the mailing date of this communication. ED (35 U.S.C. § 133).
Status		
 Responsive to communication(s) filed on <u>25 June 2007</u>. This action is FINAL. 2b) This action is non-final. Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i>, 1935 C.D. 11, 453 O.G. 213. 		
Disposition of Claims		
4) Claim(s) 1-11 is/are pending in the application 4a) Of the above claim(s) is/are withdra 5) Claim(s) is/are allowed. 6) Claim(s) 1-11 is/are rejected. 7) Claim(s) is/are objected to. 8) Claim(s) are subject to restriction and/o Application Papers 9) The specification is objected to by the Examination 10) The drawing(s) filed on 14 October 2004 is/are Applicant may not request that any objection to the Replacement drawing sheet(s) including the correction 1) The oath or declaration is objected to by the Examination 10 Claim(s)	er. e: a) accepted or b) objected drawing(s) be held in abeyance. Section is required if the drawing(s) is objected.	ee 37 CFR 1.85(a). Djected to. See 37 CFR 1.121(d).
Priority under 35 U.S.C. § 119		
 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. 		
Attachment(s) 1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date 10/14/04.	4) Interview Summary Paper No(s)/Mail D 5) Notice of Informal F 6) Other:	Pate

Application/Control Number: 10/511,181 Page 2

Art Unit: 3636

DETAILED ACTION

Information Disclosure Statement

1. The information referred to in the information disclosure statements filed on October 14, 2004 has been considered as to the merits.

Claim Rejections - 35 USC § 103

- 2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 3. Claim 1 and 5 are rejected under 35 U.S.C. 103(a) as being anticipated by Klingler (6,746,081). With respect to claim 1, Klinger discloses a seat inlay (Figure 1) comprising an elastic grid having at least two longitudinal bars (3)(3) having hangers (unlabeled) in the form of bent end portions for suspending the inlay in a frame (5) of a seat, and cross bars (2)(6)(9), which connect together the two longitudinal bars (3)(3), are made of "plastic" (column 5, line 43) and are molded to longitudinal bars. A lordosis support (1) having a plate-like support element (unlabeled), located between supporting elements (7), is made of "fibre-reinforced plastic" (column 5, line 46) and is connected to cross bars (2)(6)(9). Please note, "[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the

prior art, the claim is unpatentable even though the prior product was made by a different process." *In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985.*

With respect to claim 5, the support element is adapted to be bulged by a bulge mechanism, in the form of a Bowden cable, as described in column 5, lines 58-61.

Klinger discloses all claimed elements with the exception of the lordosis support being formed in one piece with at least one of the cross bars.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have fastened the supporting element to the cross bars by molding the supporting element so as to encapsulate the cross bars since it has been held that forming in one piece an article which has formerly been formed in two pieces and put together involves only routine skill in the art. *Howard v. Detroit Stove Works*, 150 U.S. 164 (1893)

4. Claims 2-4 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Klingler (6,746,081) in view of Deceuninck (6,152,531). As disclosed above, Klingler reveals all claimed limitations with the exception of longitudinal bars made of metal and coated with plastic at least on a major part of their length, hangars made of plastic and cross bars of at least one of differing shape and bending strength.

Deceuninck discloses longitudinal bars (1) "formed in known manner of paper wrapped or plastic coated steel wire" (column 1, lines 61-62). Bent end sections (unlabeled) of longitudinal bars (1) constitute hangars and are formed of plastic due to

Art Unit: 3636

their plastic coating. Cross bars (3) are varied in longitudinal pitch in accordance with the desired support to be provided by the platform element (column 2, lines 1-5).

It would have been obvious to one of ordinary skill in the art at the time of the instant invention to coat the longitudinal bars with plastic and vary the pitch of the cross bars disclosed by Klingler as taught by Deceunink. Deceunink states that such teachings are "known" in column 1, line 61 and column 2, line 4. Furthermore, such a modification would improve the life and supporting characteristics of the device.

5. Claims 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Klingler (6,746,081) in view of Vermilye (4,722,821). As disclosed above, Klingler reveals all claimed elements with the exception of the cross bars being formed in one step in a single injection molding die holding the longitudinal bars as straight bars in longitudinal grooves.

Vermilye discloses a grid construction (Figure 11) formed with wires (70) laid in a groove (unlabeled) of a die (96) in a straight configuration around which plastic (104) crossbars are molded.

It would have been obvious to one of ordinary skill in the art at the time of the instant invention to use a mold and manufacturing process taught by Vermilye to form the grid structure disclosed by Klingler. Such a manufacturing process is a cost effective way to form a plastic grid over an inner framework.

With respect to claim 11, Klinger, as modified by Vermilye, discloses all claimed elements with the exception of the lordosis support being simultaneously molded in one piece with at least one of the cross bars.

Page 5

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have simultaneously molded the supporting element and the cross bars since it has been held that forming in one piece an article which has formerly been formed in two pieces and put together involves only routine skill in the art. *Howard v. Detroit Stove Works*, 150 U.S. 164 (1893)

6. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Klingler (6,746,081) in view of Vermilye (4,722,821), as applied to claim 7, and in further view of JP 01214417 (JP'417). Klingler, as modified, discloses all claimed elements except for bending the longitudinal bars in the mold.

JP'417 teaches such mold with a bending mechanism (see abstract).

It would have been obvious to one of ordinary skill in the art at the time the invention was made, to have used a bending mold as taught by Hosoi in order to minimize the setup for producing the lordosis support.

7. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Klingler (6,746,081) in view of Vermilye (4,722,821), as applied to claim 7, and in further view of Herbst (US 2005/0016660 A1). As disclosed above, Klingler, as modified, discloses all

claimed elements with the exception of the use of a multi-tiered injection-molding die, which is capable of forming a plurality of grids simultaneously.

Herbst discloses the use of an injection-molding die, which may contain multitiered dies (paragraph [0047]).

It would have been obvious to one of ordinary skill in the art at the time of the instant invention to use a multi-tiered die as taught by Herbst to form the grid elements. Such a modification will increase the efficiency of the manufacturing process and decrease the floor space required to produce multiple parts at one time.

Response to Amendment/Arguments

8. The amendment filed on June 25, 2007 has been considered in its entirety.

The Examiner recognizes Applicant's remarks regarding the information disclosure statement and thanks Applicant for pointing out the English-language copy of the International Search Report. A copy of the Applicant's IDS with all references initialed by the Examiner is included with this action.

Applicant argues that replacing cross bars formally formed by metal wires with cross bars molded from plastic and simultaneously molding a supporting element with said cross bars was not obvious at the time the present invention was made because it had been believed that the specific rigidity and elasticity requirements that were imposed on the grid could only be fulfilled with a grid made of metal wires. The Examiner would like to point out that Klinger discloses cross bars (2)(6)(9) wherein "instead of metal wires other elements, for example, plastic profiled sections, preferably

reinforced with glass or carbon fibres, can be used and cables may also be used" (column 5, lines 42-45). Klinger therefore discloses that plastic can be used to form the cross bars of the elastic grid. Independent claim 1 does not require the longitudinal bars to be made of plastic. Independent claim 1 simply requires the cross bars to be made of plastic and molded to the longitudinal bars. The Examiner therefore contends that Klinger anticipates an elastic grid having cross bars that are made of plastic and that are capable of being molded to longitudinal bars (3).

Given the fact that Klinger discloses cross bars made of "plastic profiled sections." preferably reinforced with glass or carbon fibre" (column 5, lines 42-43) and a lordosissupport made from "a fibre-reinforced plastic" (column 5, line 46) the Examiner maintains that it would have been obvious to one of ordinary skill in the art at the time of the instant invention to form these two elements in one piece. The Examiner recognizes that Klinger discloses a support part that is formed separately from and firmly fastened to cross bars by way of mountings (12)(13) to inhibit the separation of the support part from the cross bars. Klinger does not disclose forming these two elements in one piece. The Examiner maintains, however, that forming two elements that are comprised similar materials and are firmly attached together, in a single piece is obvious to one of ordinary skill in the art. Klinger does not teach away from this aspect of the invention. If Klinger were to teach away from the one-piece aspect of the invention, he would disclose a support element that is removably attached to the cross bars and/or made of a different material than said cross bars. Instead, Klinger discloses a support element which is intended to be irremovably connected to the cross bars and

Art Unit; 3636

is constructed of a similar plastic material. The Examiner maintains that it would have been obvious to one of ordinary skill in the art at the time of the instant invention to form the lordosis support (1) with at least one cross bar (2) (9) simultaneously in one step.

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sarah B. McPartlin whose telephone number is 571-272-6854. The examiner can normally be reached on M-Th 7:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Dunn can be reached on 571-272-6670. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Application/Control Number: 10/511,181 Page 9

Art Unit: 3636

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Sarah B. McPartlin/ Patent Examiner Art Unit 3636

SBM August 2, 2007